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Environmental Technology Verification Center for P2, Recycling, and Waste Treatment Technologies

The U. S. Environmental Protection Agency (EPA) has instituted the Environmental Technology Verification Program (ETV) to verify the performance of innovative technical solutions to problems that may affect human health or the environment. ETV was created to substantially accelerate the entrance of new environmental technologies into the domestic and international marketplace. It will supply technology purchasers and vendors, consulting engineers, states, and EPA regions with high-quality data on the performance of new technologies. This will allow more rapid protection of the environment with better and less expensive approaches.

Currently the Center consists of two pilot programs, one in metal finishing pollution prevention technologies and one in innovative coatings and coating equipment technologies. Both pilots are operated by Concurrent Technologies Corporation. The EPA plans to transition this Center into one with a much wider scope, covering more pollution prevention and recycling technologies, as well as waste treatment technologies. More industry and economic sectors will also be included. To accomplish this, EPA plans to conduct a competitive solicitation and award process in 2003.

Verifications Process and Benefits to Vendors and Purchasers

The verification process involves:

- Identifying critical areas requiring P2, recycling, or waste treatment solutions;
- Identifying innovative technologies that address the critical areas;
- Soliciting commercial-ready technologies for verification testing;
- Conducting verification testing of those technologies in industry, under actual operating conditions; and
- Disseminating the verification results through an extensive distribution network.

Benefits of the ETV Center for P2, Recycling, and Waste Treatment Technologies include:

- Identifying promising and innovative P2, recycling, and waste treatment technologies;
- Generating confidence in innovative technologies and enhancing their deployment in industry;
- Increasing market penetration of less-polluting products;
- Accelerating the development and commercialization of technologies;
- Providing objective performance data to buyers of environmental technologies; and
- Facilitating technology acceptance and permitting at the state and local levels.

Metal Finishing

Metal finishing processes include electroplating, electroless plating, anodizing, coating (chromating, phosphating, and coloring), chemical etching and milling, cleaning, and printed circuit board manufacturing. The performance of technologies that can prevent pollution, recycle bath chemistries or rinse water, and more effectively treat wastes from these processes will be verified.

Coatings and Coating Equipment

Innovative coatings are environmentally friendly by virtue of their composition or their curing process, such as near-zero VOC liquids, powder coatings, and UV/EB curable coatings. Innovative equipment generates less pollution by expanding the use of innovative coatings or by applying coatings more efficiently, such as applying powder coatings to metal coils, high transfer efficiency spray equipment, and laser targeting devices. Innovative technologies that are associated with surface preparation, coating application, and cleanup processes in finishing operations will be verified.

Metal Finishing Verifications

Focus Areas:
Acid Bath Maintenance
Water Use Reduction/Recycle
Energy Use Reduction
Metal Recovery/Recycle
Sludge Reduction
Electroless Nickel Bath Maintenance
Chromate Conversion Coating Solution Maintenance
Aqueous Cleaner Bath Maintenance

Verifications to Date:
Microfiltration
Biological Degreasing System
Organoclay Filtration
Electrodialysis
Reverse Osmosis
Evaporation
Tank Covers for Energy Use Reduction
Ion Exchange
Electrocoagulation
Dissolved Air Flotation/Flocculation

Coatings and Coating Equipment Verifications

Focus Areas:
Low VOC and/or HAP liquid coatings
High transfer efficiency coating application equipment
Spray Painter Training Devices
UV/EB curable coatings
Innovative coating process technologies
Low VOC and/or HAP cleaning technologies
Equipment and/or line cleaning technologies
Innovative pretreatment technologies
Powder coatings

Verifications to Date:
High-volume, low-pressure spray guns (4 products)
Laser targeting and training device
Architectural/industrial liquid coating

Contact Information

Donn Brown
CTC P2 Metal Finishing Program Manager
7935 114th Avenue
Largo, FL 33773
(727) 549-7007
browndw@ctcgsc.org

Dr. George Moore, Ph.D.
EPA P2 Metal Finishing Program Manager
26 W. Martin Luther King Drive, MS 445
Cincinnati, OH 45268
(513) 569-7991
moore.george@epa.gov

Brian Schweitzer
CTC Coatings and Coating Equipment Program Manager
100 *CTC* Drive
Johnstown, PA 15904
(814) 269-2772
schweitz@ctcgsc.org

Michael Kosusko
EPA Coatings and Coating Equipment Program Manager
Mail Code E-343-02
Research Triangle Park, NC 27711
(919) 541-2734
kosusko.mike@epa.gov

Invitation to Participate

Vendors and purchasers of innovative P2, recycling, and waste treatment technologies that are interested in participating in the ETV Center for P2, Recycling, and Waste Treatment Technologies, or would like to be placed on our mailing list, should call the EPA or Concurrent Technologies Corporation *(CTC)* program offices listed. Additional information is also available by accessing the following website:

http://www.epa.gov/etv